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(54) Title: COMPOSITIONS AND METHODS FOR TREATING CANCER

(57) **Abstract:** Methods of treating individuals identified as having cancer using ATP citrate lyase inhibitor and/or tricarboxylate transporter inhibitor are disclosed. Methods of inducing apoptosis in cancer cells using an ATP citrate lyase inhibitor and/or tricarboxylate transporter inhibitor are disclosed. Methods of treating an individual who has cancer comprising the steps of identifying the cancer as having a high rate of aerobic glycolysis, and administering an ATP citrate lyase inhibitor and/or tricarboxylate transporter inhibitor are disclosed. Methods of treating individuals who have cancer using compounds that inhibit the expression of ATP citrate lyase or tricarboxylate transporter are disclosed. Methods of identifying a compound with anticancer activity are disclosed.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/14263

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/34
US CL : 514/473

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 514/473

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Database CAPLUS on STN (Columbus, OH, USA) DN 128:290070, Van Vlijmen B et al, Arzneimittel-Forschung, 1998, 48 (4) 396-402, abstract.	1-57
A	Database EMBASE on STN (Columbus, OH, USA) Hildebrandt L et al, Am. J. Physiol. - Cell Physiol., 1995, 269/1, 38-1 (C22-C27) abstract.	1-57
A	Database CANCERLIT on STN (Columbus, OH, USA) Gribble A D et al, J. Medicinal Chem. 1996 Aug 30, 39 (18) 3569-84, abstract.	54-57

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Continuation of B. FIELDS SEARCHED Item 3:
REGISTRY, CAPLUS, USPATFULL, PROUSDDR, BIOSIS, CANCERLIT, MEDLINE, EMBASE, WPIDS, specific compounds and
ATP citrate lyase inhibitor and neoplasms, drug therapy, antagonists, inhib?, disrupt? block?, antag?, apopto?, cell death, screen?,
evaluat?